

What is claimed is:

1. An image capturing apparatus comprising:

an image capturing part for capturing an image of a subject at a variable image-capturing frame rate to generate image data;

a display part for displaying an image associated with said image data at a variable display frame rate; and

a controller for controlling said image capturing part and said display part,

said controller being capable of performing a frame rate change process,

wherein said controller changes said image-capturing frame rate and said display frame rate in synchronism with each other from a first frame rate to a second frame rate in said frame rate change process.

2. An image capturing apparatus capable of capturing a moving image, comprising:

an image capturing part for capturing an image of a subject at a variable image-capturing frame rate to generate image data;

a recording part for recording said image data at a variable recording frame rate;

and

a controller for controlling said image capturing part and said recording part,

said controller being capable of performing a frame rate change process,

wherein said controller changes said image-capturing frame rate and said recording frame rate in synchronism with each other from a first frame rate to a second frame rate in said frame rate change process.

3. The image capturing apparatus according to claim 1,
said image capturing apparatus having a plurality of shooting scene modes,
wherein said controller performs said frame rate change process in response to a
change of a current one of said plurality of shooting scene modes.

4. The image capturing apparatus according to claim 1, further comprising
a detector for detecting the motion of a main subject included in said subject,
wherein said controller is capable of autonomously performing said frame rate
change process, based on a result of detection of said detector.

5. The image capturing apparatus according to claim 1, wherein
said controller is capable of performing a resolution change process in
synchronism with said frame rate change process, and
said controller changes the resolution of said image data from a first resolution
to a second resolution in said resolution change process.

6. The image capturing apparatus according to claim 3, wherein
said plurality of shooting scene modes include a sport mode for a fast moving
subject, and a non-sport mode other than said sport mode, and
said second frame rate is higher than said first frame rate when said frame rate
change process is performed in response to a change of said current shooting scene mode
from said non-sport mode to said sport mode.

7. The image capturing apparatus according to claim 4,
said image capturing apparatus having a plurality of shooting scene modes,

said plurality of shooting scene modes including a specific shooting scene mode,

wherein said controller autonomously performs said frame rate change process, based on the result of detection of said detector when a current one of said plurality of shooting scene modes is set to said specific shooting scene mode.

8. An image capturing apparatus comprising:

an image capturing part for capturing an image of a subject at a variable image-capturing frame rate to generate image data;

a display part for displaying an image associated with said image data at a variable display frame rate; and

a controller for controlling said image capturing part and said display part,

wherein said controller sets said image-capturing frame rate and said display frame rate to the same control frame rate at the same time.

9. An image capturing apparatus comprising:

an image capturing part for capturing an image of a subject at a variable image-capturing frame rate to generate image data;

a recording part for recording said image data at a variable recording frame rate;

and

a controller for controlling said image capturing part and said recording part,

wherein said controller sets said image-capturing frame rate and said recording frame rate to the same control frame rate at the same time.

10. The image capturing apparatus according to claim 8,

said image capturing apparatus having a plurality of shooting scene modes,
wherein said controller determines said control frame rate, based on a current
one of said plurality of shooting scene modes.

11. The image capturing apparatus according to claim 5, wherein
said second frame rate is higher than said first frame rate, and
said second resolution is lower than said first resolution.

12. The image capturing apparatus according to claim 4, wherein
said detector comprises a distance measuring part for measuring a distance to
said main subject in the direction of an optical axis of said image capturing apparatus.

13. The image capturing apparatus according to claim 4, wherein
said detector comprises a calculation part for calculating a distance said main
subject has moved in a direction perpendicular to an optical axis of said image capturing
apparatus.

14. The image capturing apparatus according to claim 1, wherein
said image capturing part comprises an image capturing device including a
plurality of light-sensitive pixels,
said image capturing apparatus changing the number of light-sensitive pixels to
be read among said plurality of light-sensitive pixels to thereby change said
image-capturing frame rate.

15. The image capturing apparatus according to claim 1, wherein

said display part comprises a display device including a plurality of display pixels,

said image capturing apparatus changing the number of display pixels to be scanned among said plurality of display pixels to thereby change said display frame rate.

16. The image capturing apparatus according to claim 1,
said image capturing apparatus having a plurality of exposure modes,
wherein said controller performs said frame rate change process in response to a change of a current one of said plurality of exposure modes.

17. The image capturing apparatus according to claim 16, wherein
said plurality of exposure modes include an aperture priority mode, and a non-aperture priority mode other than said aperture priority mode,
said image capturing apparatus effecting automatic exposure control, based on an aperture value manually set by a user in said aperture priority mode; and
said second frame rate is lower than said first frame rate in said frame rate change process,
said frame rate change process being performed in response to a change of said current exposure mode from said non-aperture priority mode to said aperture priority mode.

18. The image capturing apparatus according to claim 1,
said image capturing apparatus having a plurality of exposure modes,
said plurality of exposure modes including a shutter speed priority mode,
said image capturing apparatus effecting automatic exposure control, based on a

shutter speed manually set by a user in said shutter speed priority mode,

wherein said second frame rate is higher than said first frame rate in said frame rate change process,

said frame rate change process being performed in response to manual setting of a higher shutter speed than a predetermined threshold value when a current one of said plurality of exposure modes is set to said shutter speed priority mode.